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NATIONAL COMMUNICABLE DISEASE CENTER

Morbidity and Mortality

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WEEKLY REPORT

Week Ending July 15, 1967

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

PUBLIC HEALTH SERVICE

BUREAU OF DISEASE PREVENTION AND ENVIRONMENTAL CONTROL

EPIDEMIOLOGIC NOTES AND REPORTS
VIRAL HEPATITIS – Rush County, Indiana

Seventy-five cases of viral hepatitis occurred among the 20,000 residents of rural Rush County, Indiana, over a 5-month period from January through May 1967. Of this total, 45 cases were related to Manilla School, a public school with grades 1-12 in Walker Township. These cases occurred in three discernible clusters over the 5-month period. The other 30 cases occurring in the County included three small contact spread outbreaks; only one of the cases among the 30 could be related to the school group. In Figure 1, the 75 cases are shown by date of onset and by association with the school.

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The lower half of Figure 1 depicts all cases related to Manilla School. Cases in students and staff are shown in the open boxes whereas cases in household and family contacts of students are shown in the black boxes. The

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CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

(Cumulative totals include revised and delayed reports through previous weeks)

DISEASE	28th WEEK ENDED		MEDIAN 1962 - 1966	CUMULATIVE, FIRST 28 WEEKS		
	JULY 15, 1967	JULY 16, 1966		1967	1966	MEDIAN 1962 - 1966
Aseptic meningitis	59	57	49	990	862	792
Brucellosis	12	8	10	149	120	189
Diphtheria	1	–	3	56	84	143
Encephalitis, primary:						
Arthropod-borne & unspecified	21	33	- - -	715	722	- - -
Encephalitis, post-infectious	15	14	- - -	495	487	- - -
Hepatitis, serum	40	23	566	1,117	706	22,566
Hepatitis, infectious	665	488		20,987	17,865	
Malaria	33	7	4	1,070	165	48
Measles (rubeola)	534	1,871	4,047	55,602	182,610	344,726
Meningococcal infections, total	37	38	38	1,477	2,396	1,672
Civilian	36	37	- - -	1,372	2,134	- - -
Military	1	1	- - -	105	262	- - -
Poliomyelitis, total	2	1	5	13	31	53
Paralytic	2	1	5	11	29	42
Rubella (German measles)	394	507	- - -	37,871	39,532	- - -
Streptococcal sore throat & scarlet fever	5,439	3,876	3,876	287,124	273,020	253,248
Tetanus	7	8	5	100	83	124
Tularemia	4	6	10	82	84	143
Typhoid fever	7	5	8	205	168	197
Typhus, tick-borne (Rky. Mt. spotted fever)	15	14	11	125	101	97
Rabies in animals	82	51	94	2,449	2,366	2,366

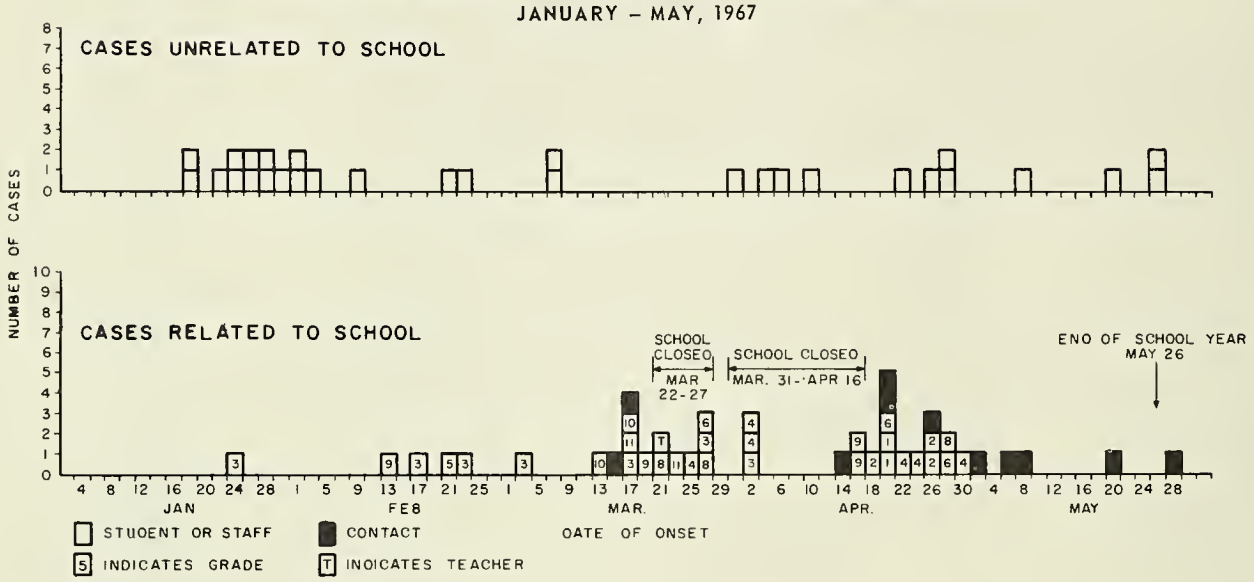
NOTIFIABLE DISEASES OF LOW FREQUENCY

	Cum.		Cum.
Anthrax	2	Rabies in man	–
Botulism	2	Rubella, Congenital Syndrome	4
Leptospirosis	20	Trichinosis: NYC-1	43
Plague: Ariz.-1	1	Typhus, murine: Tex.-1, W.Va.-1	23
Psittacosis	27	Polio, Unsp.	2

VIRAL HEPATITIS – Rush County, Indiana

(Continued from front page)

Figure 1
CASES OF VIRAL HEPATITIS BY DATE OF ONSET, RUSH COUNTY, INDIANA
JANUARY – MAY, 1967



index case was a 3rd-grade male who became ill on January 23, approximately one month after visiting in another state in a home with a known hepatitis case. The next five cases had dates of onset 21 to 39 days after the onset of illness in the index case. Of these initial six cases, four were in 3rd-graders who sat in the same row of desks in the same classroom.

Two other clusters of cases among students and staff are apparent in the Figure. The second cluster began March 13 when a 10th-grade male, a frequent basketball companion of case number two, became ill 29 days after onset of illness in his friend. Fourteen other cases occurred during the subsequent 22-day period, ending April 2. One of these was the only teacher who became ill; she worked with students in grades 9-12. Twelve of the remaining 13 cases can be explained in terms of known exposure to previous cases – friends, classmates, Sunday School companions, basketball teammates, and bus companions.

A third cluster of cases extending over a 14-day period began on April 15 when a 9th-grade female developed illness. Likewise, the other ill children in this cluster had known exposures, similar to those in the second cluster. The final case in this cluster became ill April 29. No new cases occurred in students or staff during May.

Through May 31, there were 11 cases of hepatitis with jaundice among preschool or adult relatives of Manilla School students. Five cases were in siblings less than 20 years of age, three in parents of students, and three in relatives who lived in other households. As shown in Figure 1, the earliest onset date among this group was March 13 and the latest, May 27. None of these 11 persons had received gamma globulin prior to onset of illness.

Upon recognition of the outbreak related to Manilla School, certain preventive measures were instituted by the Rush County Health Department. Improved personal hygiene and school sanitation were stressed; social activities were reduced to a minimum. The school was temporarily closed on March 31, after the students had returned to school for 4 days following spring vacation from March 22-27. School was not reopened until April 17. Although gamma globulin was not administered routinely, 46 of the 292 students in the school did receive this preventive measure from private physicians.

Twenty-three of the 33 student cases occurred among 172 children in grades 1-6, an attack rate of 13.4 percent. Among these, seven were 3rd-graders and six were 4th-graders. The remaining 10 cases occurred among 120 students in grades 7-12 (an attack rate of 8.3 percent). None of the 33 ill students had received gamma globulin prior to onset of illness.

An additional 30 cases of viral hepatitis occurred in Rush County in persons who had no association with the Manilla School cases. Twenty-three of these cases were in persons under 20 years of age and 7 were in adults; onset dates are shown in the upper half of Figure 1. Among this group, there were three small but distinct outbreaks plus a fourth group of cases probably unrelated to each other. Ten of the cases with onset dates in January and February represent a localized outbreak in a recreation facility in Rushville; the index case had become ill in

late December. Another outbreak involved a single residence from which there were four cases over a 4-month period. A third group of cases centered around a single grade in Haven School, involving six children over a 2-month period. There is one possible association of the latter outbreak with a Manilla related case. The remaining 10 cases in Rush County could not be related to each other or to the Manilla cases.

(Reported by Dr. A. L. Marsholl, Director, Division of Communicoble Diseose Control, ond Mr. Robert Humphrey, Chief Investigotor, Division of Communicoble Disease Control, Indiono State Board of Health; Dr. Frank Green, Heolth Officer for Rush County, Rushville, Indiana; and on EIS Officer.)

Editorial Note:

The Manilla School outbreak was typical of contact spread infectious hepatitis, based on several characteristics: the occurrence of illnesses, primarily among young children, with three discernible clusters of cases over a 5-month period, and in almost all cases, history of exposure to previous cases at appropriate intervals prior to onset of illness.

ANNUAL SURVEILLANCE SUMMARY
SMALLPOX IN THE UNITED STATES – 1966

Although the last confirmed cases of smallpox in the United States occurred in 1949, the National Communicable Disease Center maintains a continuing national vigilance for introduced smallpox. In 1966, the NCDC provided clinical, epidemiological, and laboratory assistance in the diagnosis of 46 cases of suspicious vesicular disease reported from 20 states and Puerto Rico.

In 14 instances (involving 16 patients, 3 of whom were in one family), the Smallpox Eradication Program conducted an epidemiological appraisal. Of this group of patients, eight had recently traveled overseas, five of whom had been in smallpox epidemic or endemic regions during the 2 weeks prior to their arrival in the U.S. Smallpox Health Alert Notices had been issued by the Foreign Quarantine Program to each of the five at the port of entry; these were instrumental in stimulating them to seek medical aid when their illnesses began.

In the remaining 30 cases, laboratory specimens from a variety of sources in the states were referred to the Vesicular Disease Virus Laboratory for diagnosis. Specimens were subjected to one or more of the following tests depending upon the information available at the time it was received: culture in embryonated eggs; tissue culture (RU 1 human embryonic lung fibroblast and HEP-2 cell lines); agar gel diffusion; electron microscopy; and occasionally the complement fixation test for antigen. Sera submitted for study were subjected to either complement fixation or hemagglutination inhibition antibody testing.

Smallpox was considered by the reporting authority as the primary clinical diagnosis in 17 of the 46 cases. In two other cases, smallpox was included in the differential diagnosis. In no instance was the diagnosis of smallpox confirmed. Negative culture results on the chorioallantoic membrane in each of three successive passages coupled with negative electron microscopic and agar gel diffusion tests were accepted as sufficient to rule out the presence of variola or vaccinia virus. In 7 of the 17 cases, a virus other than variola was identified as the etiologic agent.

Of the 46 cases studied, a specific etiology was established in 18 (Table 1). The agents detected were identified by means of five different laboratory tests. In only five cases was the original clinical diagnosis confirmed; in an additional 13 cases, agents were recovered that revealed a different diagnosis; in 28 cases, no etiologic agent was identified.

In 13 cases, the referring clinical diagnosis was "vaccinia" or "vaccination reaction." Eleven of the patients had a history of exposure to vaccinia either by vaccination or by contact with a vaccinated sibling within 3 weeks preceding onset of illness. Etiologic agents were identified in the specimens from only 4 of these 13 patients; two suffered from vaccinial infections, in both cases exzema vaccinatum; varicella and Herpes Simplex were serologically identified in the other two patients.

(Reported by the Smollpox Eradicotion Progrom ond the Vesiculor Diseose Loborotory, Virol Exonthems Unit, Loborotory Progrom, NCDC.)

Table 1

Laboratory Diagnosis in Cases of Vesicular Disease for which NCDC Assistance Sought

Primary Clinical Diagnosis	Laboratory Diagnosis Made			Laboratory Diagnosis Not Made	Total
	Confirmed Clinical Diagnosis	Confirmed Other Diagnosis	Total		
Smallpox, RO SP	0	7	7	10	17
Vaccinia, RO Vacc.	1	2	3	9	12
Varicella, RO Var.	2	1	3	5	8
Herpes, RO herpes	2	1	3	2	5
Other*	0	2**	2	2	4
Total	5 (10.9%)	13 (28.3%)	18 (39.1)	28 (60.9%)	46 (100%)

*Hepatitis – 1; Impetigo – 1; Kaposis – 1; Encephalitis – 1
**Coxsackie A-16 – 1 (Serology); Enterovirus – 1 (Electron Microscope)

CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED
JULY 15, 1967 AND JULY 16, 1966 (28th WEEK)

AREA	ASEPTIC MENINGITIS		BRUCELLOSIS	DIPHTHERIA	ENCEPHALITIS			HEPATITIS			
					Primary including unsp. cases		Post-Infectious	Serum		Infectious	
	1967	1966	1967	1967	1967	1966	1967	1967	1966	1967	1966
UNITED STATES...	59	57	12	1	21	33	15	40	23	665	488
NEW ENGLAND.....	-	1	-	-	1	4	-	1	-	24	13
Maine.....	-	-	-	-	-	-	-	-	-	3	3
New Hampshire.....	-	-	-	-	-	-	-	-	-	3	-
Vermont.....	-	-	-	-	-	-	-	-	-	-	-
Massachusetts.....	-	1	-	-	-	3	-	1	-	12	5
Rhode Island.....	-	-	-	-	-	1	-	-	-	1	2
Connecticut.....	-	-	-	-	1	-	-	-	-	5	3
MIDDLE ATLANTIC.....	4	10	-	-	3	10	-	14	10	109	65
New York City.....	2	2	-	-	2	-	-	7	5	37	18
New York, up-State.	-	1	-	-	-	3	-	5	1	27	19
New Jersey.....	1	4	-	-	-	4	-	2	3	21	12
Pennsylvania.....	1	3	-	-	1	3	-	-	1	24	16
EAST NORTH CENTRAL...	10	4	1	-	9	2	3	2	1	113	90
Ohio.....	2	-	-	-	8	-	-	2	-	25	19
Indiana.....	-	-	-	-	-	-	-	-	1	3	9
Illinois.....	1	1	-	-	-	2	1	-	-	45	9
Michigan.....	7	3	1	-	1	-	2	-	-	32	48
Wisconsin.....	-	-	-	-	-	-	-	-	-	8	5
WEST NORTH CENTRAL...	1	3	5	-	-	2	2	-	1	45	24
Minnesota.....	1	3	1	-	-	-	2	-	1	7	1
Iowa.....	-	-	2	-	-	1	-	-	-	5	11
Missouri.....	-	-	-	-	-	-	-	-	-	30	7
North Dakota.....	-	-	-	-	-	-	-	-	-	-	1
South Dakota.....	-	-	-	-	-	1	-	-	-	-	-
Nebraska.....	-	-	2	-	-	-	-	-	-	1	1
Kansas.....	-		-	-	-	-	-	-	-	2	3
SOUTH ATLANTIC.....	5	13	-	-	2	4	1	2	3	65	36
Delaware.....	-	-	-	-	-	-	-	-	-	1	-
Maryland.....	1	1	-	-	1	-	1	1	1	15	5
Dist. of Columbia..	-	-	-	-	-	-	-	1	-	2	-
Virginia.....	1	-	-	-	-	1	-	-	1	17	8
West Virginia.....	-	1	-	-	-	-	-	-	-	10	4
North Carolina.....	-	2	-	-	1	-	-	-	-	3	5
South Carolina.....	-	1	-	-	-	-	-	-	-	3	3
Georgia.....	-	-	-	-	-	-	-	-	-	2	7
Florida.....	3	8	-	-	-	3	-	-	1	12	4
EAST SOUTH CENTRAL...	8	3	2	1	1	1	-	2	-	29	34
Kentucky.....	-	-	-	-	-	-	-	-	-	7	17
Tennessee.....	8	-	1	1	1	-	-	2	-	11	10
Alabama.....	-	1	-	-	-	-	-	-	-	1	2
Mississippi.....	-	2	1	-	-	1	-	-	-	10	5
WEST SOUTH CENTRAL...	11	5	2	-	2	5	4	-	-	59	66
Arkansas.....	-	-	-	-	-	-	-	-	-	2	10
Louisiana.....	-	1	1	-	-	2	4	-	-	6	18
Oklahoma.....	-	-	-	-	1	-	-	-	-	5	1
Texas.....	11	4	1	-	1	3	-	-	-	46	37
MOUNTAIN.....	-	-	-	-	1	2	-	-	-	40	26
Montana.....	-	-	-	-	-	-	-	-	-	10	1
Idaho.....	-	-	-	-	-	-	-	-	-	3	2
Wyoming.....	-	-	-	-	-	-	-	-	-	-	-
Colorado.....	-	-	-	-	1	2	-	-	-	6	5
New Mexico.....	-	-	-	-	-	-	-	-	-	4	10
Arizona.....	-	-	-	-	-	-	-	-	-	13	7
Utah.....	-	-	-	-	-	-	-	-	-	4	1
Nevada.....	-	-	-	-	-	-	-	-	-	-	-
PACIFIC.....	20	18	2	-	2	3	5	19	8	181	134
Washington.....	1	2	-	-	-	-	-	-	-	19	17
Oregon.....	-	-	-	-	1	-	1	-	1	12	11
California.....	12	15	1	-	1	3	4	19	7	150	92
Alaska.....	-	-	1	-	-	-	-	-	-	-	10
Hawaii.....	7	1	-	-	-	-	-	-	-	-	4
Puerto Rico	-	-	-	-	-	-	-	-	-	24	38

CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES

FOR WEEKS ENDED

JULY 15, 1967 AND JULY 16, 1966 (28th WEEK) - CONTINUED

AREA	MALARIA	MEASLES (Rubeola)			MENINGOCOCCAL INFECTIONS, TOTAL			POLIOMYELITIS			RUBELLA
			Cumulative			Cumulative		Total	Paralytic		
	1967	1967	1967	1966	1967	1967	1966	1967	1967	Cum. 1967	1967
UNITED STATES...	33	534	55,602	182,610	37	1,477	2,396	2	2	11	394
NEW ENGLAND.....	-	8	800	2,158	-	58	110	-	-	-	59
Maine.....	-	4	233	192	-	3	9	-	-	-	14
New Hampshire.....	-	-	72	65	-	2	9	-	-	-	-
Vermont.....	-	-	42	219	-	-	4	-	-	-	15
Massachusetts.....	-	4	308	748	-	29	43	-	-	-	14
Rhode Island.....	-	-	60	72	-	4	12	-	-	-	4
Connecticut.....	-	-	85	862	-	20	33	-	-	-	12
MIDDLE ATLANTIC.....	7	81	2,135	17,702	8	235	275	1	1	3	67
New York City.....	-	17	411	8,178	-	38	39	-	-	1	12
New York, Up-State.	1	59	523	2,384	5	59	79	1	1	1	54
New Jersey.....	2	5	477	1,833	2	85	77	-	-	-	-
Pennsylvania.....	4	-	724	5,307	1	53	80	-	-	1	1
EAST NORTH CENTRAL...	1	54	5,042	66,538	7	195	374	-	-	-	94
Ohio.....	-	2	1,116	6,226	2	66	100	-	-	-	3
Indiana.....	-	9	579	5,549	-	25	64	-	-	-	3
Illinois.....	-	12	876	11,189	1	45	74	-	-	-	47
Michigan.....	1	5	872	13,363	3	44	99	-	-	-	14
Wisconsin.....	-	26	1,599	30,211	1	15	37	-	-	-	27
WEST NORTH CENTRAL...	1	32	2,761	8,522	-	63	132	1	1	1	17
Minnesota.....	-	1	117	1,621	-	15	31	-	-	-	-
Iowa.....	-	2	738	5,229	-	12	21	1	1	1	4
Missouri.....	-	3	329	523	-	12	52	-	-	-	10
North Dakota.....	-	18	814	1,034	-	1	7	-	-	-	3
South Dakota.....	-	1	52	40	-	6	4	-	-	-	-
Nebraska.....	-	7	618	75	-	11	8	-	-	-	-
Kansas.....	1	-	93	NN	-	6	9	-	-	-	-
SOUTH ATLANTIC.....	11	81	6,622	14,338	10	285	398	-	-	1	34
Delaware.....	-	1	43	250	-	5	4	-	-	-	-
Maryland.....	1	2	142	2,070	1	34	39	-	-	1	3
Dist. of Columbia..	-	1	22	377	-	10	10	-	-	-	-
Virginia.....	1	29	2,066	1,939	3	34	49	-	-	-	-
West Virginia.....	-	15	1,344	4,968	-	20	16	-	-	-	19
North Carolina.....	6	2	838	389	2	60	99	-	-	-	-
South Carolina.....	-	3	492	641	3	27	45	-	-	-	2
Georgia.....	-	2	32	231	-	43	57	-	-	-	-
Florida.....	3	26	1,643	3,473	1	52	79	-	-	-	10
EAST SOUTH CENTRAL...	1	34	5,000	19,152	1	120	210	-	-	1	23
Kentucky.....	-	2	1,289	4,653	-	34	79	-	-	-	7
Tennessee.....	-	30	1,756	11,904	1	49	68	-	-	-	14
Alabama.....	-	1	1,303	1,622	-	24	44	-	-	-	2
Mississippi.....	1	1	652	973	-	13	19	-	-	1	-
WEST SOUTH CENTRAL...	1	83	16,878	23,252	1	205	350	-	-	5	5
Arkansas.....	-	-	1,401	966	-	25	32	-	-	-	-
Louisiana.....	1	1	149	91	-	82	132	-	-	-	-
Oklahoma.....	-	1	3,314	467	-	14	18	-	-	1	-
Texas.....	-	81	12,014	21,728	1	84	168	-	-	4	5
MOUNTAIN.....	6	59	4,369	11,422	1	26	76	-	-	-	28
Montana.....	-	-	275	1,789	-	-	4	-	-	-	3
Idaho.....	-	3	368	1,454	-	1	5	-	-	-	-
Wyoming.....	-	-	78	143	-	1	6	-	-	-	-
Colorado.....	5	22	1,492	1,172	1	11	39	-	-	-	25
New Mexico.....	1	6	571	1,093	-	3	10	-	-	-	-
Arizona.....	-	18	973	5,182	-	4	8	-	-	-	-
Utah.....	-	10	343	546	-	4	-	-	-	-	-
Nevada.....	-	-	269	43	-	2	4	-	-	-	-
PACIFIC.....	5	102	11,995	19,526	9	290	471	-	-	-	67
Washington.....	-	4	5,384	3,412	1	25	35	-	-	-	2
Oregon.....	-	8	1,515	1,564	-	24	30	-	-	-	6
California.....	4	79	4,823	14,119	7	228	387	-	-	-	55
Alaska.....	-	2	128	310	-	9	15	-	-	-	-
Hawaii.....	1	9	145	121	1	4	4	-	-	-	4
Puerto Rico.....	-	46	2,015	2,376	-	10	9	-	-	-	2

CASES OF SPECIFIED NOTIFIABLE DISEASES: UNITED STATES
FOR WEEKS ENDED

JULY 15, 1967 AND JULY 16, 1966 (28th WEEK) - CONTINUED

AREA	STREPTOCOCCAL SORE THROAT & SCARLET FEVER	TETANUS		TULAREMIA		TYPHOID		TYPHUS FEVER TICK-BORNE (Rky. Mt. Spotted)		RABIES IN ANIMALS	
	1967	1967	Cum. 1967	1967	Cum. 1967	1967	Cum. 1967	1967	Cum. 1967	1967	Cum. 1967
UNITED STATES...	5,439	7	100	4	82	7	205	15	125	82	2,449
NEW ENGLAND.....	714	-	1	-	-	-	2	-	-	-	57
Maine.....	29	-	-	-	-	-	-	-	-	-	14
New Hampshire.....	27	-	-	-	-	-	-	-	-	-	34
Vermont.....	70	-	-	-	-	-	-	-	-	-	7
Massachusetts.....	74	-	1	-	-	-	2	-	-	-	1
Rhode Island.....	35	-	-	-	-	-	-	-	-	-	1
Connecticut.....	479	-	-	-	-	-	-	-	-	-	-
MIDDLE ATLANTIC.....	353	-	7	-	-	1	21	3	17	-	44
New York City.....	8	-	3	-	-	-	10	-	-	-	-
New York, Up-State.	325	-	1	-	-	1	7	-	4	-	35
New Jersey.....	NN	-	1	-	-	-	2	-	6	-	-
Pennsylvania.....	20	-	2	-	-	-	2	3	7	-	9
EAST NORTH CENTRAL...	323	2	13	-	10	-	14	1	13	16	252
Ohio.....	81	2	4	-	-	-	4	-	7	1	94
Indiana.....	41	-	2	-	2	-	4	-	1	11	51
Illinois.....	54	-	5	-	8	-	1	1	5	-	51
Michigan.....	115	-	2	-	-	-	4	-	-	1	23
Wisconsin.....	32	-	-	-	-	-	1	-	-	3	33
WEST NORTH CENTRAL...	187	-	6	-	14	-	8	-	1	15	563
Minnesota.....	-	-	2	-	-	-	1	-	-	5	107
Iowa.....	34	-	-	-	1	-	2	-	-	4	70
Missouri.....	33	-	3	-	4	-	2	-	1	-	106
North Dakota.....	66	-	-	-	-	-	-	-	-	4	100
South Dakota.....	7	-	1	-	1	-	-	-	-	1	76
Nebraska.....	27	-	-	-	-	-	2	-	-	-	37
Kansas.....	20	-	-	-	8	-	1	-	-	1	67
SOUTH ATLANTIC.....	778	3	24	-	7	-	22	7	49	11	325
Delaware.....	3	-	-	-	-	-	-	-	-	-	-
Maryland.....	55	-	-	-	-	-	2	-	10	-	-
Dist. of Columbia..	1	-	-	-	-	-	1	-	-	-	-
Virginia.....	251	-	5	-	-	-	3	4	14	3	158
West Virginia.....	171	-	-	-	1	-	1	-	-	1	53
North Carolina.....	2	-	6	-	-	-	2	2	17	-	3
South Carolina.....	23	-	1	-	2	-	4	-	3	-	-
Georgia.....	12	-	3	-	3	-	5	1	5	3	71
Florida.....	260	3	9	-	1	-	4	-	-	4	40
EAST SOUTH CENTRAL...	799	1	18	-	7	-	30	2	20	15	499
Kentucky.....	38	-	-	-	1	-	13	-	7	2	108
Tennessee.....	653	-	8	-	4	-	5	2	9	12	354
Alabama.....	61	-	7	-	-	-	8	-	4	1	35
Mississippi.....	47	1	3	-	2	-	4	-	-	-	2
WEST SOUTH CENTRAL...	667	1	17	4	33	4	26	2	11	21	505
Arkansas.....	-	-	4	4	18	-	7	2	3	1	65
Louisiana.....	2	-	3	-	3	1	12	-	-	1	43
Oklahoma.....	30	-	-	-	9	3	3	-	6	8	159
Texas.....	635	1	10	-	3	-	4	-	2	11	238
MOUNTAIN.....	954	-	-	-	7	1	16	-	8	1	75
Montana.....	24	-	-	-	1	-	1	-	-	-	-
Idaho.....	32	-	-	-	-	-	-	-	-	-	-
Wyoming.....	5	-	-	-	2	-	-	-	-	-	4
Colorado.....	631	-	-	-	1	-	11	-	8	1	9
New Mexico.....	110	-	-	-	-	1	1	-	-	-	22
Arizona.....	60	-	-	-	-	-	3	-	-	-	36
Utah.....	90	-	-	-	3	-	-	-	-	-	1
Nevada.....	2	-	-	-	-	-	-	-	-	-	3
PACIFIC.....	664	-	14	-	4	1	66	-	6	3	129
Washington.....	43	-	-	-	2	-	-	-	1	-	1
Oregon.....	30	-	1	-	-	-	-	-	-	-	1
California.....	503	-	11	-	2	1	63	-	5	3	127
Alaska.....	33	-	-	-	-	-	-	-	-	-	-
Hawaii.....	55	-	2	-	-	-	3	-	-	-	-
Puerto Rico.....	12	-	8	-	-	-	4	-	-	1	22

Week No. 28

DEATHS IN 122 UNITED STATES CITIES FOR WEEK ENDED JULY 15, 1967

(By place of occurrence and week of filing certificate. Excludes fetal deaths)

Area	All Causes		Pneumonia and Influenza All Ages	Under 1 year All Causes
	All Ages	65 years and over		
NEW ENGLAND:	759	422	34	51
Boston, Mass.	268	149	14	8
Bridgeport, Conn.	41	19	2	5
Cambridge, Mass.	29	18	-	1
Fall River, Mass.	21	13	1	2
Hartford, Conn.	37	16	-	7
Lowell, Mass.	21	11	-	1
Lynn, Mass.	17	11	-	-
New Bedford, Mass.	25	15	1	1
New Haven, Conn.	61	30	2	15
Providence, R. I.	61	32	4	1
Somerville, Mass.	11	7	-	-
Springfield, Mass.	53	30	5	5
Waterbury, Conn.	48	28	-	2
Worcester, Mass.	66	43	5	3
MIDDLE ATLANTIC:	3,264	1,839	108	163
Albany, N. Y.	59	36	-	4
Allentown, Pa.	32	22	-	4
Buffalo, N. Y.	163	95	2	8
Camden, N. J.	44	21	1	1
Elizabeth, N. J.	23	9	2	2
Erie, Pa.	27	15	2	2
Jersey City, N. J.	73	36	4	6
Newark, N. J.*	91	42	4	8
New York City, N. Y.	1,714	986	60	80
Paterson, N. J.	47	31	2	1
Philadelphia, Pa.	426	210	12	27
Pittsburgh, Pa.	187	94	2	4
Reading, Pa.	56	40	3	3
Rochester, N. Y.	92	59	1	5
Schenectady, N. Y.	31	20	-	1
Scranton, Pa.	36	20	2	-
Syracuse, N. Y.	58	34	3	5
Trenton, N. J.	49	25	3	1
Utica, N. Y.	27	21	3	-
Yonkers, N. Y.	29	23	2	1
EAST NORTH CENTRAL:	2,603	1,439	68	145
Akron, Ohio	34	16	-	3
Canton, Ohio	49	26	2	3
Chicago, Ill.	718	378	25	40
Cincinnati, Ohio	162	99	3	6
Cleveland, Ohio	203	99	2	15
Columbus, Ohio	113	68	2	9
Dayton, Ohio	86	47	2	4
Detroit, Mich.	378	190	7	27
Evansville, Ind.	38	26	1	1
Flint, Mich.	54	23	1	5
Fort Wayne, Ind.	50	33	2	2
Gary, Ind.	37	19	2	1
Grand Rapids, Mich.	52	34	5	5
Indianapolis, Ind.	152	88	1	7
Madison, Wis.	35	21	-	4
Milwaukee, Wis.	121	73	2	4
Peoria, Ill.	39	17	-	3
Rockford, Ill.	33	21	3	1
South Bend, Ind.	46	27	3	-
Toledo, Ohio	134	86	2	3
Youngstown, Ohio	69	48	3	2
WEST NORTH CENTRAL:	861	515	25	40
Des Moines, Iowa	55	37	-	2
Duluth, Minn.	50	28	-	1
Kansas City, Kans.	48	31	5	2
Kansas City, Mo.	132	88	4	5
Lincoln, Nebr.	24	15	-	2
Minneapolis, Minn.	124	66	-	5
Omaha, Nebr.	84	51	2	7
St. Louis, Mo.	209	125	8	7
St. Paul, Minn.	73	41	1	5
Wichita, Kans.	62	33	5	4

Area	All Causes		Pneumonia and Influenza All Ages	Under 1 year All Causes
	All Ages	65 years and over		
SOUTH ATLANTIC:	1,228	597	29	103
Atlanta, Ga.	164	66	5	23
Baltimore, Md.	280	120	8	38
Charlotte, N. C.	28	12	1	1
Jacksonville, Fla.	65	39	1	3
Miami, Fla.	95	45	-	7
Norfolk, Va.	48	22	-	5
Richmond, Va.	65	36	-	3
Savannah, Ga.	29	18	1	1
St. Petersburg, Fla.	76	57	1	5
Tampa, Fla.	82	47	6	8
Washington, D. C.	212	89	5	6
Wilmington, Del.**	84	46	1	3
EAST SOUTH CENTRAL:	724	380	33	28
Birmingham, Ala.	123	66	1	5
Chattanooga, Tenn.	50	23	3	6
Knoxville, Tenn.	57	34	1	1
Louisville, Ky.	180	93	15	2
Memphis, Tenn.	115	64	2	5
Mobile, Ala.	55	26	5	2
Montgomery, Ala.	43	15	2	1
Nashville, Tenn.	101	59	4	6
WEST SOUTH CENTRAL:	1,037	535	32	63
Austin, Tex.	34	22	3	1
Baton Rouge, La.	30	18	1	2
Corpus Christi, Tex.	24	12	-	5
Dallas, Tex.	143	69	1	12
El Paso, Tex.	34	15	3	4
Fort Worth, Tex.	88	51	-	7
Houston, Tex.	190	84	2	6
Little Rock, Ark.	50	21	2	4
New Orleans, La.	150	76	4	8
Oklahoma City, Okla.	78	42	3	5
San Antonio, Tex.	110	69	5	5
Shreveport, La.	47	27	3	2
Tulsa, Okla.	59	29	5	2
MOUNTAIN:	486	297	20	20
Albuquerque, N. Mex.	53	31	3	4
Colorado Springs, Colo.	16	13	2	-
Denver, Colo.	124	65	7	4
Ogden, Utah	25	14	2	1
Phoenix, Ariz.	136	76	6	5
Pueblo, Colo.	22	18	-	1
Salt Lake City, Utah	54	38	-	3
Tucson, Ariz.	56	42	-	2
PACIFIC:	1,651	981	37	69
Berkeley, Calif.	20	16	1	1
Fresno, Calif.	48	18	-	4
Glendale, Calif.	34	23	-	-
Honolulu, Hawaii	52	23	2	5
Long Beach, Calif.	72	49	4	2
Los Angeles, Calif.	521	315	13	26
Oakland, Calif.	94	53	3	3
Pasadena, Calif.	35	25	-	3
Portland, Oreg.	130	84	1	6
Sacramento, Calif.	58	37	1	-
San Diego, Calif.	92	52	-	1
San Francisco, Calif.	204	111	5	4
San Jose, Calif.	45	28	3	2
Seattle, Wash.	143	77	2	8
Spokane, Wash.	56	38	-	2
Tacoma, Wash.	47	32	2	2
Total	12,613	7,005	386	682

*Estimate - based on average percent of divisional total.
**Two-week total; previous week total not available due to vacation of personnel.

Cumulative Totals
including reported corrections for previous weeks

All Causes, All Ages ----------352,129
All Causes, Age 65 and over----------202,223
Pneumonia and Influenza, All Ages---------- 12,993
All Causes, Under 1 Year of Age---------- 17,788

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EPIDEMIOLOGIC NOTES AND REPORTS

VACCINIA VIRUS TRANSMITTED TO DAIRY CATTLE

Louisiana

Following smallpox vaccination of some dairy farm employees in Claiborne Parish, Louisiana, on May 4, 1967, 16 of 85 cows on the farm developed lesions on the teats and udders which were clinically compatible with vaccinia virus infection. The veterinarian who diagnosed the cases originally suspected pseudocowpox, a virus believed to cause milker's nodules; this virus is antigenically different from cowpox and vaccinia viruses which are antigenically related. The diagnosis was revised when it was learned that three employees, including two who operated the milking machines, had recently received smallpox vaccination. Strict isolation and sanitary techniques instituted early were believed to have prevented the infection from spreading to the other cattle.

(Reported by Dr. Charles T. Caraway, Chief, Section of Epidemiology, Louisiana State Board of Health; and an EIS Officer.)

Editorial Note:

This outbreak, similar to some which have occurred in other states and in other countries, points out possible hazards which can occur after vaccination of dairy workers. These hazards include the serious economic disruption of milk production from infected cattle as well as the possibility of direct contact transmission from cattle to humans who have little or no immunity. Dairy workers should be warned by those administering smallpox vaccine of the necessity for maintaining good sanitary hygiene such as the constant washing of hands between cows when milking and keeping the vaccination site covered until the scab drops off. Otherwise, the dairy worker should refrain from milking dairy cows during the time of the vaccination reaction.

THE MORBIDITY AND MORTALITY WEEKLY REPORT, WITH A CIRCULATION OF 17,000, IS PUBLISHED AT THE NATIONAL COMMUNICABLE DISEASE CENTER, ATLANTA, GEORGIA.

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IN ADDITION TO THE ESTABLISHED PROCEDURES FOR REPORTING MORBIDITY AND MORTALITY, THE NATIONAL COMMUNICABLE DISEASE CENTER WELCOMES ACCOUNTS OF INTERESTING OUTBREAKS OR CASE INVESTIGATIONS WHICH ARE OF CURRENT INTEREST TO HEALTH OFFICIALS AND WHICH ARE DIRECTLY RELATED TO THE CONTROL OF COMMUNICABLE DISEASES. SUCH COMMUNICATIONS SHOULD BE ADDRESSED TO:

THE EDITOR
MORBIDITY AND MORTALITY WEEKLY REPORT
NATIONAL COMMUNICABLE DISEASE CENTER
ATLANTA, GEORGIA 30333

NOTE: THE DATA IN THIS REPORT ARE PROVISIONAL AND ARE BASED ON WEEKLY TELEGRAMS TO THE NCDC BY THE INDIVIDUAL STATE HEALTH DEPARTMENTS. THE REPORTING WEEK CONCLUDES ON SATURDAY; COMPILED DATA ON A NATIONAL BASIS ARE RELEASED ON THE SUCCEEDING FRIDAY.

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